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By-Ehresman, Norman D.

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This final report of the operation of the North Dakota Center for Research in Vocational and Technical Education covers the period from December 1, 1966 through August 31, 1969. Activities of the first 18 months (from June 30, 1965) are reported in "Establishing a Center for Research in Vocational and Technical Education" (ED 012 333, MP 000 116). This report includes a description of the organization and operation of the Research Coordinating Unit, and of the projects and other activities conducted. These included stimulation of research in vocational education, conduct of research and development projects, assistance with the development of a master plan for vocational education through 1975 for North Dakota, research information dissemination, program development assistance in post secondary institutions, and efforts in the area of maintaining liason with the many agents involved in vocational education in the state. It is essentially an historical record of the unit. (CH)

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Final Report

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NORTH DAKOTA CENTER FOR RESEARCH IN VOCATIONAL AND TECHNICAL EDUCATION

Norman D. Ehresman

University of North Dakota

Grand Forks, North Dakota

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The research reported herein was performed pursuant to a grant with the Office of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgement in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

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SUMMARY

This report covers the activities of the North Dakota Center for Research in Vocational and Technical Education for the period of December 1, 1966 to August 31, 1969.

The Center for Research in Vocational and Technical Education was the Research Coordinating Unit in North Dakota and was established in June, 1965, under the provisions of the Vocational Education Act of 1963. For the duration of its existence, the Center was located at the University of North Dakota at Grand Forks, North Dakota, and was a part of the College of Education. An office in Bismarck, North Dakota, was also maintained on a part-time basis and was located with the State Director of Vocational Education.

The activities for the reporting period included stimulation of research in vocational education, conduct of research and development projects, assistance with research and development projects, assistance with the development of a Master Plan for Vocational Education through 1975 for North Dakota, research information dissemination, program development assistance in post-secondary institutions, and efforts in the area of maintaining liaison with the many agencies involved in vocational education in the State. In addition, a considerable amount of time, during the last six months of operation, was spent in an unsuccessful attempt to secure support for the continued operation of the RCU.

One major emphasis during the last eighteen months of operation was to determine occupational opportunities throughout the State. Unfortunately, funding for the operation of the Center ended before a sizable sample could be gathered. The main body of this report contains a brief description of this and other projects completed or supported by the Center.

Under the provisions of the "Vocational Education Ammendments of 1968" (P.L. 90-576), funding for the Research Coordinating Unit was delegated to the State Director of Vocational Education and, as such, the functions of the RCU were moved from the University of North Dakota to the State Department of Public Instruction. This final report, then, brings to a close the operation of the North Dakota Center for Research in Vocational and Technical Education.

INTRODUCTION

This is a final report of the operation of the North Dakota Research Coordinating Unit for Vocational Education. This report covers the period from December 1, 1966 to August 31, 1969. This period includes a one month, no-cost extension to the contract, July, 1968, and a one month cost extension for August, 1969.

The North Dakota Research Coordinating Unit was established on June 30, 1965 and funded under the provisions of Section (4) of the Vocational Education Act of 1963. The original contract period was for 18 months. The activities of the Unit for this first 18 month period were reported in the final report for Contract No. OE-5-85-114 entitled, "Establishing a Center for Research in Vocational and Technical Education," dated January, 1967.

This final report includes a description of the organization and operation of the RCU, and of the projects and other activities conducted. It is essentially a historical record of the Unit.

SETTING AND OBJECTIVES

The North Dakota Research Coordinating Unit for Vocational Education (RCU) was located on the University of North Dakota Campus. The facilities of the University's Data Processing Center were available to the RCU. The RCU also maintained an office in the State Office Building, Bismarck, North Dakota, with the State Staff of Vocational Education. The RCU served as the research arm of the State Board for Vocational and Technical Education.

The present Director, Dr. Norman D. Ehresman, assumed directorship in June, 1967. Emphasis was directed toward establishing and maintaining a liaison between the RCU, the State Board of Vocational Education, and the Vocational Educators and Administrators throughout the state. The development of information systems and the dissemination of information on research and developments in Vocational Education facilitated this liaison.

The North Dakota RCU Staff consisted of one full-time director, one full-time projects coordinator, one full-time administrative assistant, three half-time research assistants, and part-time student help.

The major objectives of the North Dakota RCU included establishment of a data and information center for people involved in Vocational Education throughout the state, stimulating research and development activity among Vocational Educators in North Dakota, and encouraging systematic evaluation of existing programs and conditions.

The RCU also undertook the task of working with the Vocational Teacher Educators in North Dakota in developing awareness and competencies in research in people preparing to teach Vocational Education. Three Vocational Teachers in North Dakota were employed on the Staff of the RCU as part-time research assistants while working toward their degrees in Vocational Education.

INFORMATION DISSEMINATION

Information dissemination has gained new emphasis in the RCU during the 1968-69 year. As a result of efforts in this area, the RCU accomplished the following:

(1) Developed an expanding, cross-reference lending library for use by staff and any person interested in the current literature available in the area of vocational and technical education.

(2) Acquired a microfiche reader, reader-printer, and microfiche and hardcopy reproductions of approximately 4,800 documents in vocational and technical education.

(3) Published a Newsletter periodically to inform people in the state about activities of the RCU and pertinent information that was acquired by the Center during the reporting period. An encouraging amount of feedback was experienced. There is evidence that this type of activity fills a real need in the state.

(4) Published and distributed studies in vocational education produced, assisted, or encouraged by the RCU.

(5) The Staff of the RCU made numerous talks throughout the state concerning the RCU, its functions, research and research design, and other phases of vocational education.

(6) Developed a bimonthly report of all material coming into the RCU, coupled with a short abstract of subject matter included. This "Hot Line" report was sent to State Supervisors, state and local vocational education administrators, and others requesting to be on this mailing list.

(7) As a result of activities carried on by the RCU, an information dissemination unit called "Vocational Education Research Information Center" will be operational on campus during the 1969-70 school year, and hopefully will become a permanent operation. This Unit is funded under the Discretionary Award Program of the RCU.

RESEARCH AND DEVELOPMENT PROJECTS

Major Studies

The following is a list of the major studies conducted or supported by the Research Coordinating Unit for Vocational Education.

1. "Migration Patterns and Selected Characteristics of Migrants from Walsh County, North Dakota," James Kiefert, December, 1966.

North Dakota had a natural birth increase of 19 percent between 1950 and 1960, but experienced a population growth of 2.1 percent. This indicated that many people are migrating out of the state. This study attempted to compare the characteristics of a sample of three specific groups: out-of-state migrants, within-state migrants, and stables.

This study showed the majority of the migrants had lived in North Dakota the greater part of their lives; 88.9 percent had been born in North Dakota. Migration was chiefly to the West Coast and Minnesota. The typical migrant was more educated, held more prestige jobs, and had a larger income.

Salaries, sizes and opportunities of new communities, and climate were most often mentioned as reasons for leaving.

2. "The Educational and Vocational Aspirations of Prisoners," May, 1967, Gary Boyles.

This was a study of the vocational interests and aspirations of the State Penitentiary inmates. A questionnaire assessing the inmate's vocational aspirations and his attitude toward work was distributed to 259 male inmates. One hundred seventy-five were returned. Over two-thirds of the inmates were from 20-39 years of age. Most respondents had definite plans. Sixty-seven percent of ages 20-30 wished to return to school. The desire to get a job increased with the age of the prisoner. The 50-year old or older group had less definite vocational plans than the younger age groups. The experience and interest of the inmates appear to lie in the skilled occupations. Therefore, it was recommended that these areas should receive some consideration in plans for an educational program. The results also indicated that more help should be given to inmates in making their educational and vocational plans.

3. "A Survey of Parents of North Dakota High School Students Who Were Seniors in 1966," June, 1967, Thomas McCrystal.

Two thousand six hundred seventy-four North Dakota high school seniors' parents were surveyed. A random sample of 23 North Dakota counties was used, using three communities from each county, randomly selected by size. The study showed that the average parent of this group has lived most of his life in North Dakota, intends to stay there, is interested in his schools, thinks his school is as good as those in neighboring communities, but also feels the school needs improving. The typical parent also feels high school training is important, and two-thirds of the group indicated they wanted their children to attend college. Only one-half of this group felt more vocational education is needed in their community. The biggest reason for lack of interest in vocational education was the feeling that their student was college bound; cost was also a frequent factor in lack of interest. The author opinionated that the bulk of the parents felt vocational education was for the social rejects and; therefore, this concept accounted for their greater interest in the accademic programs.

4. "The Migration Aspirations of North Dakota Senior Males," August, 1967, James J. Kiefert.

This study of 1966 North Dakota high school seniors was to determine whether the North Dakota high school senior boys who intend to migrate differ significantly from those who do not so intend. Sixty-six communities were selected, including 75 high schools. A total of 1,744 boys responded. One thousand one hundred eighty-six were classified as having low migration aspirations while 558 were classified as having high migration aspirations.

This study indicates that migration aspirations follow no pattern of social class, but difficulties resulting from migration are more acute for rural-to-urban migrants. Since low migration aspirations tended to have largely rural backgrounds, the need for special counseling in the high school years was recommended.

5. "Variables Related to Persistence, Transfer and Attrition of Engineering Students," Zeno M. Van Erdewyk, September, 1967.

This study evolved because of the concern over the fact that since 1950, the percentage of entering freshmen who earn an engineering degree has decreased considerably. The objective of this study was to provide information helpful in identifying some of the factors related to the students who complete their engineering degrees and those who do not.

The population of this study consisted of 430 males enrolled as freshmen, sophomores, and juniors in the College of Engineering at the University of North Dakota during the 1965-66 academic

school year. The results of this study showed that the students who persisted toward their engineering degree tended to have higher mathematics and composite scores on the ACT, higher mean high school grades, and higher first semester college grades.

5. "The Identification of Variables Related to the Educational Plans of North Dakota Ninth Grade Boys," Donald Fixel, August, 1967.

This study was to identify the background variables that are related to the educational plans of North Dakota ninth grade boys. Five hundred ninety-four boys were grouped according to their stated desire of going to a college, vocational school, or no school after high school.

The results of this study showed occupational status and income of parents are related to the boy's educational plans. Migration aspirations and years of residence in North Dakota were not related to further education. Also, the educational level of parents of these boys did not appear to be related to the boys' expressed plans for further education in any clear manner.

7. "The Effects of Integration on Rural Indian Pupils," Harold Miller, June, 1968.

This study investigated the influence of integrating Indian pupils in predominantly non-Indian schools. The study included 704 ninth grade pupils from 12 public schools located in six reservation areas in and adjacent to North Dakota. One hundred two were integrated Indian pupils, 107 non-integrated Indian pupils, 354 non-Indian pupils who had attended the integrated school for the first eight years of their schooling, and 139 non-Indian pupils who had transferred into this integrated school.

The conclusion of this study was that there appeared to be a consistent, positive relationship between low cultural, economic, and social levels and low achievement, low intelligence, high alienation, and negative attitudes toward school.

Of significance to vocational education was the second part of this study covering, "Predictive Power of Cultural Variables for Achievement, Alienation, Attitude Toward School, and Vocational Maturity." This part of the study concluded that the education of parents is the most important factor in developing desirable traits and behaviors in Indian pupils. This would indicate that schools responsible for developing this acculturation process would do well to develop extensive adult education programs geared to needs and problems peculiar to the Indian adult.

This study also showed considerable evidence that suggests Indian pupils have not reached the vocational maturity of non-Indian pupils. The Vocational Development Inventory developed by Crites (1961-62) was used to determine these findings. Findings relating

to vocational maturity also suggested that integration does have a positive effect on the development of increased realism in vocational choices by Indian pupils. Again, the need for active programs of parent education and involvement in school-community affairs was stressed.

8. "Identification of Variables Related to the Educational Plans of North Dakota High School Senior Boys," Thomas P. Johnson, June, 1967.

The purpose of this study was to learn more about high school senior boys who plan different types of post-high school education. One thousand six hundred eighty-one senior boys and 1,189 of their parents in 73 schools in North Dakota were included in this study. Plans for further formal education were anlayzed and the boys and their parents were assigned to three groups according to the educational plans of the boys: (1) college, (2) vocational school, (3) no further formal education.

The study came up with the following conclusions: College-bound boys were found in families with the highest incomes, parental education and occupational levels, and the least number of children. Boys planning to attend college aspired to the highest status occupations, and exhibited the highest achievement levels and lowest migration aspirations. College-bound boys rated the opportunities for further study to help others, to work with others, and to improve work skills as more important than did the other two categories when making occupational plans.

Boys not planning further formal education were from the largest families with the lowest income, occupational, and educational levels. Boys in this category aspired to the lowest status occupations and rated income, time for one's family, and the opportunity to work with material things as more important values than did the college group. The lowest achievement level and highest migration aspirations were found in this category. Boys bound for vocational schools appeared between the college and non-college-bound boys on most of the variables. Knowledge of the relations of these variables can enable school personnel to better assist students as they make vocational plans.

9. "An Analysis of the Effectiveness of the MDTA Institutional Program in North Dakota," May, 1968, Norman D. Ehresman, Lyle S. Evenson, Frank N. Fischer.

This study was to evaluate the efforts of the North Dakota MDTA Institutional Programs. It included only those graduates who have been in the labor market for at least one year. Effectiveness of the program was measured by ascertaining specific information about the graduates of the program. The type of information secured included employment vs. employment, type of employment, level of wages, and place of employment. Information was gathered by means of a mail interview technique. Before enrollment in the

MDTA program, all of the participants had been unemployed or underemployed. Of these MDTA graduates, 94 percent were employed at the time of the study. Of the remaining 6 percent which were unemployed, it was found they had left the labor market for personal reasons, such as marriage. The study also showed MDTA graduates' hourly wages are above those of untrained workers. The findings of the study revealed the MDTA programs are effective in getting people employed. It was recommended the MDTA programs in North Dakota should be continued and expanded as an effective means of preparing persons for employment.

10. "Facilitation and Interference in the Older Adult Learner," McCrystal, May, 1967.

This study was started at the North Dakota RCU but, due to the transfer of Dr. McCrystal, was completed at Xaviar University in Ohio. The RCU does not have a final report of this study.

11. "State Manpower Survey"

This was a study designed to determine the employment and training needs of all employees of North Dakota. A questionnaire was sent to the employers, employees and parents. the principal investigators in this study have left North Dakota and the present staff of the RCU has studied the material collected but, due to the small number of returns, no valid conclusions can be drawn from this study.

12. "North Dakota Labor Study"

The project was started and dropped by the former Director of the North Dakota RCU.

13. "Teacher Opinion Survey," June, 1968.

This study, using the "Purdue Teacher Opinionnaire," was designed to determine what factors affect the morale and efficiency of the vocational teacher of North Dakota. The survey instrument, along with a Biographical Data Sheet, was mailed to all secondary and post-secondary teachers in North Dakota.

The study showed that the typical vocational teacher in North Dakota is young (average age 33), employed on a 10 month basis, been in present position five years, and feels the future for Vocational Education in North Dakota looks favorable.

The older teacher seems to rate higher on the morale scale as did the more educated teacher. The teacher who spent his entire day in vocational education also seemed to have a higher morale rating. Interestingly, the teacher employed for a shorter length of time (less than 11 months), also scored higher on the morale scale.

14. A survey of employers in North Dakota to determine the occupational opportunities and training needs. The original plans called for completion of the project in three years but, due to a cancellation of funds for the operation of the RCU, it was not possible to complete the project. A total of 85 school districts participated during the 1968-69 school year and 58 of those completed the survey. Summary reports for completed surveys were returned to the local school administrator for his use in planning vocational programs. At the time of this writing, there are plans for the State Division of Vocational Education to continue the project.

15. A student interest inventory study was conducted at Mott, Hillsboro and Portland High Schools to ascertain the students educational, vocational and migration aspirations and interests. The procedures developed could have been used throughout the state had the RCU continued to operate. The forms and procedures are in the hands of the Assistant State Director of Vocational Education.

16. The Bismarck Pre-Vocational Training Center, which operates under MDTA, requested assistance in conducting a follow-up study of their dropouts. The RCU assisted in the project and published the final report entitled, "A Follow-Up Study of the Dropouts of the Bismarck, North Dakota Pre-Vocational Training Center."

PROGRAM DEVELOPMENT

The RCU has been directly involved with several development studies. Direct involvement means that the activities have either been initiated and conducted by the RCU staff or the RCU has been instrumental in the conduct of the study which has been initiated by some other person or agency.

1. "Non-Productive Agriculture Employment in Minot," July, 1968, Maynard Iverson.

This study stemmed from a survey of all agriculture businesses in Minot, North Dakota which deal directly with farmers to learn the need and desire for trained workers and the nature of the training needed. Also gathered was some general information such as salaries, fringe benefits, etc. which would be beneficial in orienting vocational agriculture students to employment opportunities in the community.

Contacted were 41 firms within the city limits of Minot employing 685 workers in 58 job titles. Over 56 percent of the firms were engaged in retailing and servicing functions. Farm machinery and equipment, dairy products, crop spraying, and grain buying were major products and services.

Most employees were male and 60 percent had farm experience. Employment was stable with 40 new employees expected between 1967-1970 and annual turnover of 103.6 persons. Pay for most firms ranged between $250-$550. Retirement benefits were provided by all firms. Employers generally preferred and required high school graduation for beginning workers. Farm residence background was preferred for all job levels but clerical. Twenty-three firms were collectively willing to hire approximately 30 students under a cooperative work experience training program.

2. "A Survey of the Need for Pre-School Teacher Training," Mrs. Beatrice B. Zimmermann, Mrs. Ruth Amos, January, 1968.

The purpose of this study was to assess the need for a training program for pre-school teachers and assistant teachers in and near the city of Minot, North Dakota.

Of the 60 questionnaires returned from educators and administrators, 34 registered approval of the development of a course

for child care and training. From 63 questionnaires returned, 49 teachers and administrators of pre-school programs expressed definite interest in taking child development courses.

High school home economics teachers, welfare office caseworkers, kindergarten teachers and Head Start teachers were included in the study and all expressed an urgent need for a training program for nursery and kindergarten teachers, with curriculum sufficiently flexible to afford pre-college and college training, and a laboratory nursery school with practical experience.

3. "A Review and Synthesis of Research Relating to Vocational Education in North Dakota," Dr. Norman D. Ehresman, January, 1968.

This report represents efforts of the RCU staff to pull together all the research and program materials related to vocational education in North Dakota. The document is being used as a basis for planning the future program development in vocational education. Included is background information on social and economic characteristics, current programs in vocational education, and recommendations for future development of the program.

4. "A Study of the Job and Educational Experience of the 1959 Vocational Agriculture Graduates of Selected North Dakota High Schools," Donald W. Priebe, August, 1967.

The purpose of this study was to determine the job and educational experiences of the 1959 vocational agriculture graduates of selected North Dakota high schools. The study was limited to the 1959 vocational agriculture graduates who had completed three or more years of vocational agriculture. Twenty-five schools offering vocational agriculture from 1955-1966 were selected. Twenty-one schools replied, sending in a total of 170 names of 1959 graduates. One hundred twenty of the 170 graduates returned the mailed questionnaire and these were the basis of the study.

Findings of this study included: 50 percent of the graduates entered the work force immediately after graduation; more than 80 percent of those taking employment entered agricultural fields; 56.8 percent of the graduates were engaged in agricultural occupations at the time of the study; 6.7 percent of the group were employed as professional agriculturists; 35.8 percent of the group were engaged in production agriculture. Eighty of the 120 graduates remained in North Dakota. These findings, suggests the author, show the importance of the vocational agriculture program in North Dakota.

5. "A Program in Vocational Office Education Utilizing Independent Study, Team Teaching, and Modular Scheduling," Gene Christensen, June, 1968.

Mr. Christensen, Office Education Teacher-Coordinator, West Fargo, North Dakota, High School, has developed a pilot project with his 12 business office education courses utilizing independent study, team teaching, and modular scheduling. This system permits a student to schedule any of the 12 business courses (providing the student has met the prerequisites) anytime during the school day that fits the student's schedule. This permits many students to complete a course in less time than would have been possible under the traditional schedule, or allows a slower student to progress at a pace more compatible to his ability. It also allows students to take courses they might not otherwise have worked into their schedule.

Individualized instructional material has been developed, groups have been scheduled into 20-minute modules, and teachers have been assigned within the complex to be available for individual help.

Observance by other schools has been encouraged and the materials have been made available to interested parties.

6. "Employment Opportunities in the Distributive Occupations in Bismarck, North Dakota," Leonard Pokladnick, June, 1968.

Leonard Pokladnick, Distributive Education Teacher-Coordinator, Bismarck Junior College, conducted an employer's survey of retail and wholesale establishments within the city of Bismarck to determine their employment needs, present and projected, in three categories: (1) sales and clerical, (2) midmanagerial, and (3) managerial. The survey also was designed to determine the number of cooperative education training stations available for secondary and post-secondary distributive education students. The study is in the process of final publication.

7. The RCU Staff assisted the Lake Region Junior College, Devils Lake, North Dakota, in evaluating and revising the curriculum for their "Civil Technology" program.

8. Dr. Norman Ehresman, Director, North Dakota RCU, worked on a committee with the North Dakota State School of Science, Wahpeton, North Dakota, in developing a curriculum to train telephone linemen.

MASTER PLANNING

In March, 1968, the State Board for Vocational Education requested a Master Plan for Vocational Education be developed for North Dakota. The North Dakota RCU was asked to assist in this project. Dr. Ehresman was appointed Co-Chairman of the Executive Committee which began immediately to develop the Philosophy and Objectives for Vocational Education in North Dakota. Eight study committees were set up consisting of the following: (1) Organization and Administration, (2) Public Information, (3) Finance, (4) Facilities, (5) Curriculum & Programs, (6) Teacher Needs & Preparation, (7) Guidance & Personnel Service, (8) Research & Evaluation. The chairman of each study committee also served on the Executive Committee.

The Master Plan to be developed will include recommendations regarding: (1) Programs to be offered in (a) Secondary Schools, (b) Post-Secondary Schools, (c) Adult Education, (d) Special Needs Areas; (2) Facilities to be used; (3) A Public Information Program; (4) Finances; (5) How the program is to be organized for administration purposes; (6) Teacher Preparation; (7) The evaluation of vocational education programs; (8) Research needed for the continuing improvement of the program; (9) Vocational guidance services.

The first draft of the Master Plan was written by Dr. Ehresman, Mr. Frank Fischer and Mr. Carrol Burchinal, and was printed in May, 1969. The second draft was printed and distributed to committee members and all interested parties within the state in August, 1969. The plans were for the Master Plan in its final form to be presented to the State Board for Vocational Education in early October, 1969. Copies of the Plan should be available from the State Director.

STIMULATION ACTIVITIES

The North Dakota RCU has had as one of its prime objectives to stimulate research and creativity and to encourage and assist in new innovations by vocational educators at both the secondary and post-secondary level throughout the state. All projects and studies previously mentioned in this report undertaken or supported by the North Dakota RCU could be categorized directly or indirectly as stimulation activities.

Of particular significance in this category, but previously described under other categories, are the following:

(1) "A Study of the Job and Educational Experience of the 1959 Vocational Agriculture Graduates of Selected North Dakota High Schools," Donald Priebe, August, 1967.

(2) "A Program in Vocational Office Education Utilizing Independent Study, Team Teaching, and Modular Scheduling," Gene Christensen, June, 1968.

(3) "Employment Opportunities in Distributive Occupations in Bismarck, North Dakota," Leonard Pokladnick, June, 1968.

(4) "Variables Related to Persistence, Transfer, and Attrition of Engineering Students," Zeno M. Van Erdewyk, September, 1967.

Studies not mentioned previously include:

(1) "The Disabled in North Dakota: Estimates and Projections," Kenneth Roulx, April, 1968.

This study attempted to determine the number of disabled people in North Dakota and the kinds of disability. It also determined selected characteristics of the disabled population within the state of North Dakota. The statistics from this study were forwarded to all agencies and planning staffs for vocational rehabilitation.

The study showed that North Dakota's disabled population was proportionately older than the national average. The study also showed a sizable number of disabled persons in North Dakota are unemployed, particularly above age 40. More than one-half of the disabled unemployed indicated that they were able to hold a job

indicating vocational rehabilitation services are needed to provide these persons with assistance necessary to obtain and hold a job.

Only 11 percent of the disabled receive any kind of economic aid from either government or private agencies although 54 percent of the disabled are living at or below an income designated as the poverty level. An additional 25 percent live between this level and $5,000. It was suggested, therefore, that some effort is needed to help alleviate this unsatisfactory condition. Only approximately 10 percent of the disabled have utilized the services of one or more of the agencies designed to help the disabled, showing the vast majority of the disabled are not aided in any way.

(2) The North Dakota RCU consulted with Dr. Josephine Ruud, Home Economics Department, North Dakota State University, in regard to four research proposals developed by Dr. Ruud.

Proposal I - "Adult Homemaking Education in North Dakota Schools."

This study was to attempt to identify practices and attitudes in relation to adult homemaking programs in North Dakota schools having a vocational homemaking program.

Proposal II - "Participation Patterns of Low and Middle Income Parents."

The purpose of this study was to discover participation patterns in PTA's by low-income and middle-income parents.

Proposal III - "Abilities and Lacks of Beginning Vocational Home Economics Teachers Who Are Graduates of North Dakota State University."

The purpose of this study was to learn problems, strengths, weaknesses, and feelings of beginning vocational home economics teachers who are graduates of North Dakota State University.

Proposal IV - "Longitudinal Study of Participation Patterns of Young Women in the Community Organizations."

The purpose of this study was to maintain contact with young women from the time of their marriage for a number of years to discover what activities they participate in through the years and why they participate.

(3) "Summary of Studies in Vocational and Technical Education in North Dakota, 1960-1969" was prepared and published by the RCU in May, 1969. It is a bibliography of the research done in North Dakota in vocational education.

DISCRETIONARY AWARD ACTIVITIES

The Discretionary Award Fund in the amount of $20,000 was provided to the RCU in order to stimulate vocational education research within the state. Efforts to involve the State Vocational Education Staff in the administration of these funds and in developing useful projects were never as fruitful as they should have been. As a result, the administration of the program fell on the RCU Staff.

Three major projects and four smaller projects were initiated and funded. A description of each of the projects and the amount of funds for each follows.

Mr. Edward Wood, of the RCU Staff, conducted a project entitled, "A Survey of Occupational Opportunities in North Dakota." The project was operated out of the RCU but involved local people in surveying employers in their school area. The information gained is being used in planning local programs of vocational education as well as for planning area vocational school programs.

The project was intended to cover a period of three years and would have included all school districts in the state. During the 1968-69 school year, a total of 85 districts were involved and 58 had completed the survey by June, 1969. The State Vocational Education Staff intended to complete the project after the RCU closed its doors on August 31, 1969. The total amount of funds expended on this project was $4,016.42 .

Mr. Gene Christensen, Office Education Teacher at West Fargo High School, conducted a project entitled, "A Program in Vocational Office Education Utilizing Independent Study, Team Teaching, and Modular Scheduling." Mr. Christensen had been experimenting and had developed a program which looked to be valuable to other teachers in the state. He was encouraged to write a description of his program and to present it to other teachers at their annual meeting. The report of his project was printed and distributed by the RCU, and Mr. Christensen was reimbursed $150 for his efforts.

"A Pilot Program in Vocational Education Research Information" was a project conducted within the RCU during the 1968-69 school year. This project afforded the RCU a linkage with the ERIC Clearinghouse, at the Ohio State University, and stimulated research in occupational education throughout the State by making research information available to all interested parties. A great deal of time and effort was expended in devising procedures whereby information requests could be filled

and, whereby persons could become aware of the materials that were available. The total amount of funds expended on this project was $6,092.22 .

As a result of the pilot project in information dissemination, the RCU funded an operational project called, "Establishment of a Vocational Education Research Information Center." This project was placed under the direction of Mr. Donald Eshelby and was planned to be conducted from August 1, 1969 to August 31, 1970. The project was intended to carry on the research stimulation and program improvement activities of the RCU, and to utilize the equipment of the RCU. The total amount of funds allotted to the project was $7,926.36 .

Mr. Kenneth Melin, Vocational Agriculture Instructor at the Walsh County Agriculture and Training School, proposed a pilot program to develop and tryout a "Course for Vocational Students in Career Exploration." The project was designed to provide exploratory experiences for rural youth in off-farm agricultural occupations to be conducted during a summer school session. The project was funded jointly by the RCU and the State Board for Vocational Education. The total Discretionary Award Funds expended was $375.

The North Dakota Vocational Agriculture Teachers Association was awarded a grant from the Discretionary Award Funds to conduct a "Curriculum Development Workshop." The main purpose of the Workshop was to stimulate interest in and develop new curricula for agricultural occupations other than production agriculture. The activities of the project were conducted throughout the 1968-69 school year and a continuing effect on agricultural education within the state was expected. The total funds expended on this project amounted to $1,200..

Mr. Curtis Tonneson, Office Education Coordinator at Minot High School, conducted a research project entitled, "Survey of Vocational Office Education Coordination." The study was conducted in Minnesota and North Dakota to determine the various coordination activities of office education teachers. The total funds expended on this project were $240.

Detailed reports of the projects funded under the Discretionary Award Program are available from the College of Education, University of North Dakota. A detailed financial accounting is included in the final fiscal report prepared by the Comptroller, University of North Dakota.

GENERAL COMMENTS

The Research Coordinating Unit for Vocational Education in North Dakota was closed after approximately four years operation. The overall effectiveness of the Unit must be rated high, due to the large number of activities conducted and the wide-range of individuals involved. The RCU was terminated by the State Board for Vocational Education as a result of a change in funding patterns rather than because of an ineffective operation.

The idea of a Research Coordinating Unit within each state, a Unit which can concern itself directly with research and development activities and promote improvement in occupational education, still appears to be a good one. A stable, continuing source of funds should be available if such a Unit is to be successful. In addition, success of an RCU is dependent upon the research and development mindedness of the State Director of Vocational Education and his Staff.

If there could only be one conclusion and one recommendation resulting from the experience of the North Dakota Research Coordinating Unit for Vocational Education, they would be that the Unit was a success and that it should be continued.